

**AMENDMENTS TO THE DRAWINGS:**

The attached sheets of drawings include the Examiner's requested changes to FIG. 1. Specifically, Applicants have amended FIG. 1 to explicitly show the "plurality of base stations" disclosed, for example, at page 10, lines 9-16 in the specification.

Applicants attach a Replacement Sheet including the corrected figure and an Annotated Sheet showing where changes have been made.

**Attachments:** Replacement Sheet of FIG. 1  
Annotated Sheet showing changes to FIG. 1

### **REMARKS**

Applicants submit this Reply in response to the non-final Office Action mailed January 23, 2008. Before this response, claims 41-80 were pending, of which claims 41, 55, 67, 79, and 80 were independent. In this response, Applicants have canceled claims 42, 67-78, and 80 without prejudice or disclaimer. Applicants have amended claims 41, 51, 55-66, and 79 and added new independent claim 81 and new dependent claim 82. Accordingly, claims 41, 43-66, 79, 81, and 82 are currently pending, of which claims 41, 55, 79, and 81 are independent.

In the non-final Office Action dated January 23, 2008, the Examiner objected to the drawings for failing to show every feature of the invention specified in the claims. The Examiner rejected claims 41-43, 48, 54-57, 61, and 79 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Application Publication No. 2003/0224802 ("Nir et al.") in view of U.S. Patent Application Publication No. 2005/0272447 ("Eckel"). Finally, the Examiner identified allowable subject matter in claims 44-47, 49-53, 58-60, and 62-66, but objected to these claims as depending on a rejected base claim. Applicants respectfully traverse the pending objections and rejections for at least the reasons set forth below.

#### **Specification and Drawings**

The Examiner objected to the drawings under 37 C.F.R. § 1.83(a) because "the processing module in claim 55, base stations in claims 43 & 57 and adjacent base stations in claims 45 & 58 must be shown [in Applicants' drawings]." Non-final Office Action dated January 23, 2008, at 2.

Regarding the base stations recited in claims 43, 45, 57, and 58, Applicants have amended FIG. 1 to explicitly show exemplary base stations as already described in the specification. Although these exemplary base stations were not originally shown in FIG. 1, Applicants' specification originally described the base stations, for example:

The network 14 generally includes a plurality of base stations (not shown in the drawing, but of known type) adapted to permit transfer of messages and communications from the terminals 12, located at elementary points (or pixels) in the area wherein location is performed, to service centers, systems and apparatus connected to the network 14 as is the case of the center 15.

Applicants' specification, page 10, lines 9-16.

Applicants have amended FIG. 1 to explicitly show a plurality of base stations 13 as described in the specification. In addition, Applicants have amended the specification to clarify that "The network 14 generally includes a plurality of base stations 13 (not shown in the drawing, but (e.g., of known type) . . ." No new matter has been added by these amendments to the specification. Accordingly, Applicants respectfully submit that the above-noted amendments obviate the pending drawings objections based on the base stations recited in claims 43, 45, 57, and 58.

Regarding the processing module recited in apparatus claim 55, Applicants point out that FIG. 1 illustrates, for example, an exemplary location center 15 including, *inter alia*, "a processor unit such as a computer 55 of a known type." Applicants' specification, page 10, lines 17-18. Further, FIG. 2 illustrates, for example, an exemplary "control circuit 25 [that] is adapted to control operation of the terminal 12 on the basis of software modules included in the control circuit 25 and a SIM card 27 connected (in a known manner) to the control circuit 25." Applicants' specification, page 9, lines 17-21.

Since claim 55 broadly claims an “apparatus,” i.e., which may be a mobile terminal 12, a location center 15, or any other apparatus that complies with the recitations in claim 55, Applicants submit that the “processing module” recited in claim 55 is not limited to any of the exemplary processing modules disclosed in Applicants’ illustrative embodiments shown in the figures and/or described in the specification. In view of the above, Applicants submit that the pending drawings objections based on the processing module recited in claim 55 should be removed.

Applicants have also amended the paragraph beginning at page 6, line 26 in the specification to correct a minor typographical error therein.

**Rejections Under 35 U.S.C. § 103(a)**

Applicants respectfully traverse the Section 103(a) rejections of claims 41-43, 48, 54-57, 61, and 79. To establish a *prima facie* case of obviousness, “All Claim Limitations Must Be Considered.” M.P.E.P. § 2143.03 (8th ed., rev. 6, Sept. 2007). More specifically, the M.P.E.P. requires that “[a]ll words in a claim must be considered in judging the patentability of that claim against the prior art.” *Id.* (quoting *In re Wilson*, 424 F.2d 1382, 1385 (CCPA 1970)). Applicants submit that a *prima facie* case of obviousness has not been established for at least the reason that the cited art, whether taken alone or in combination, fails to teach or suggest every element recited in Applicants’ independent claims 41, 55, and 79, as presently amended.

Each of Applicants’ independent claims 41, 55, and 79, as presently amended, calls for a combination including, for example, “deriving an estimate of said altitude coordinate from information related to an altitude of one or more network elements in said cellular communications system.” The Examiner acknowledges that “Nir does not

teach the altitude coordinate which is related to the cellular communication (base station).” Non-final Office Action dated January 23, 2008, at 3. As discussed below, Applicants submit that Eckel fails to remedy the above-noted deficiency in Nir et al.

Eckel discloses a mobile communication terminal that determines its altitude. See, e.g., Eckel, ¶ 0001. To that end, the mobile terminal in Eckel performs steps of “establishing the horizontal position of the mobile communication terminal, and determining the ground level at said horizontal position.” *Id.*, ¶¶ 0048-0049. Eckel suggests that “By establishing the ground level, the altitude can be determined provided that the mobile communication terminal is at, or very close to ground level.” *Id.*, ¶ 0050. In operation, Eckel explains that “the communication terminal comprises means for determining the altitude of the ground using stored data correlating the horizontal position to a ground level . . . . When the horizontal position is known accurately, the vertical position, i.e. the ground level can be determined by e.g. using a data set correlating ground levels to horizontal positions.” *Id.*, ¶ 0015 (emphasis added).

As shown above, the mobile terminal in Eckel determines its altitude by first measuring its horizontal position and then mapping its horizontal position to a corresponding ground level (altitude) using a known data set that correlates horizontal positions and ground levels. See *id.* Eckel does not further teach or suggest using information related to an altitude of one or more network elements in the cellular network for determining the mobile terminal’s altitude. Indeed, Eckel teaches away from such an implementation, since the mobile terminal in Eckel only requires knowledge of its horizontal position to lookup its corresponding ground level in the data set. To

determine its altitude, the mobile terminal in Eckel does not require any additional knowledge of an altitude of one or more network elements in the cellular network.

In sharp contrast, each of Applicants' independent claims 41, 55, and 79 recites, among other things, "deriving an estimate of said altitude coordinate from information related to an altitude of one or more network elements in said cellular communications system." Therefore, whereas Eckel's mobile terminal determines its altitude solely from its horizontal position, Applicants' independent claims, as amended, instead recite "deriving an estimate of said altitude coordinate from information related to an altitude of one or more network elements in said cellular communications system."

In the pending rejection of claim 43, the Examiner suggests that ¶ 0092 in Eckel discloses "using the altitude coordinate of the proximate base station as the estimate of the [mobile terminal's] altitude coordinate." Non-final Office Action dated January 23, 2008, at 4-5. Applicants respectfully disagree with the Examiner's characterization of this portion of Eckel.<sup>1</sup> In the paragraph ¶ 0092 which has been reproduced below, Applicants have emphasized every instance where Eckel describes a "base station."

According to another preferred embodiment, the data correlating horizontal positions to the ground level is stored at a service provider 15 which is connected to the cellular network. To enable the ground level data to be provided to mobile telephone 1, **a connection is established between mobile telephone 1 and the service provider 15, via base station 16, as is well known to a person skilled in the art. After establishing the horizontal position, the mobile phone sends an RF signal incorporating the horizontal position via the base station 16 and the cellular network to the service provider 15.** Typically, the data is transmitted to and from the mobile phone 1 as a short message service (SMS) message,

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<sup>1</sup> The Office Action contains a number of statements reflecting characterizations of the Applicants' disclosure, including the claims, and the related art. Regardless of whether any such statement is specifically addressed herein, Applicants decline to automatically subscribe to any statement or characterization in the Office Action.

however the data can be transmitted in other data formats. Upon receipt of the signal incorporating the horizontal position of the mobile phone 1, the service provider 15 retrieves the corresponding ground level and sends a signal such as an SMS message containing the retrieved ground level back to the mobile phone 1. The content of the received signal is passed on to the processor 4 and the processor 4 stores the ground level together with the momentary output of the pressure sensor 5 as the new reference pressure and altitude.

Eckel, ¶ 0092 (emphasis added).

As shown above, ¶ 0092 in Eckel does not mention the altitude coordinate of a base station at all. Instead, the base station 16 in Eckel only appears to be a means for a mobile telephone 1 to communicate its horizontal position to a service provider 15 which, in turn, retrieves the mobile telephone's ground level based on the horizontal position. *Id.* Because of the complete absence of disclosure related to an altitude of a base station 16 in ¶ 0092, this portion of Eckel cannot remedy Nir et al. to teach or suggest at least "deriving an estimate of said altitude coordinate from information related to an altitude of one or more network elements in said cellular communications system," as recited in each of Applicants' independent claims 41, 55, and 79.

In summary, Applicants' independent claims 41, 55, and 79, as presently amended, are allowable over the art of record for at least the reason that the Examiner's asserted combination of Nir et al. and Eckel fails to teach or suggest at least "deriving an estimate of said altitude coordinate from information related to an altitude of one or more network elements in said cellular communications system," as recited in Applicants' amended independent claims 41, 55, and 79. Applicants' independent claim 81, although different in scope, recites similar subject matter and is therefore allowable for at least the same reasons. Dependent claims 43-54, 56-66, and 82 depend on

independent claims 41, 55, 79, and 81 and are also allowable for at least the same reasons.

**Conclusion**

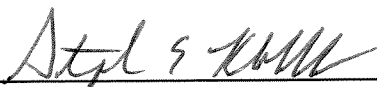
The preceding remarks are based only on the arguments in the Office Action, and therefore do not address patentable aspects of the invention that were not addressed by the Examiner in the Office Action. The claims may include other elements that are not shown, taught, or suggested by the cited art. Accordingly, the preceding remarks in favor of patentability are advanced without prejudice to other possible bases of patentability.

In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration and reexamination of this application and timely allowance of the pending claims. Please grant any extensions of time required to enter this response and charge any additional required fees to our Deposit Account No. 06-0916.

Respectfully submitted,

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Dated: May 21, 2008

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